CHAPTER 14: MASTER MAKING SECTION

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1. Theory of Operation

1. Master Making

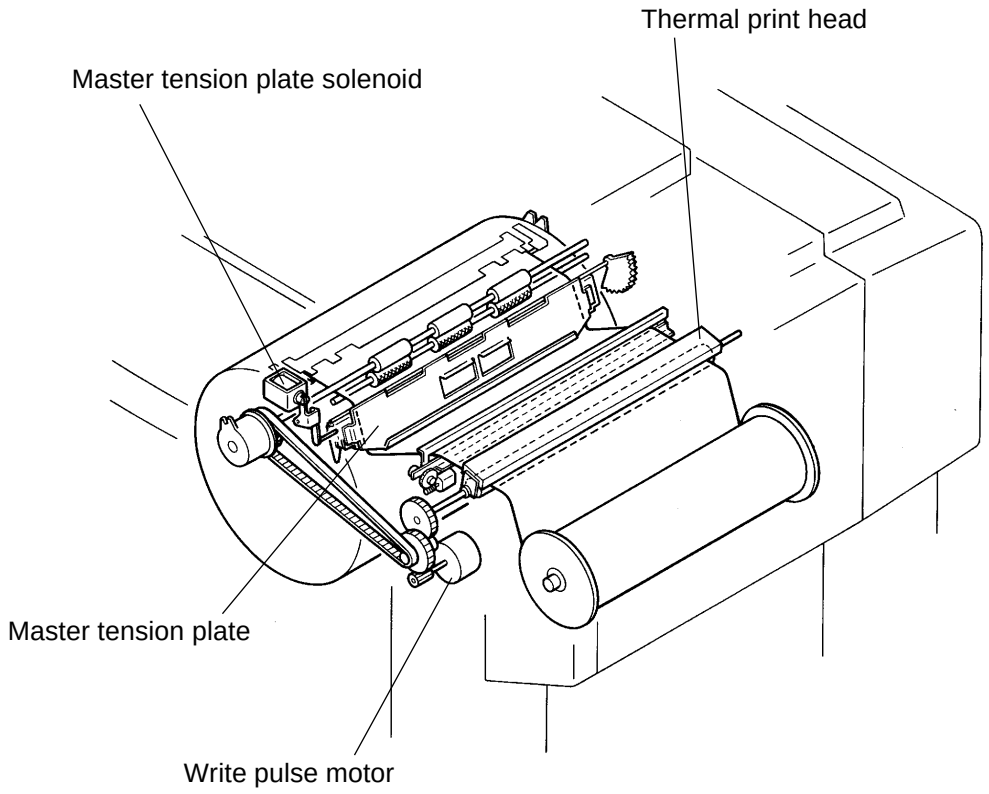
When the START key is pressed for master making, the Drum rotates to remove the master on the Drum.
At the same time the TPH•CTL signal is turned ON to supply heating power to the Thermal print head.

1. Start of the Master Making

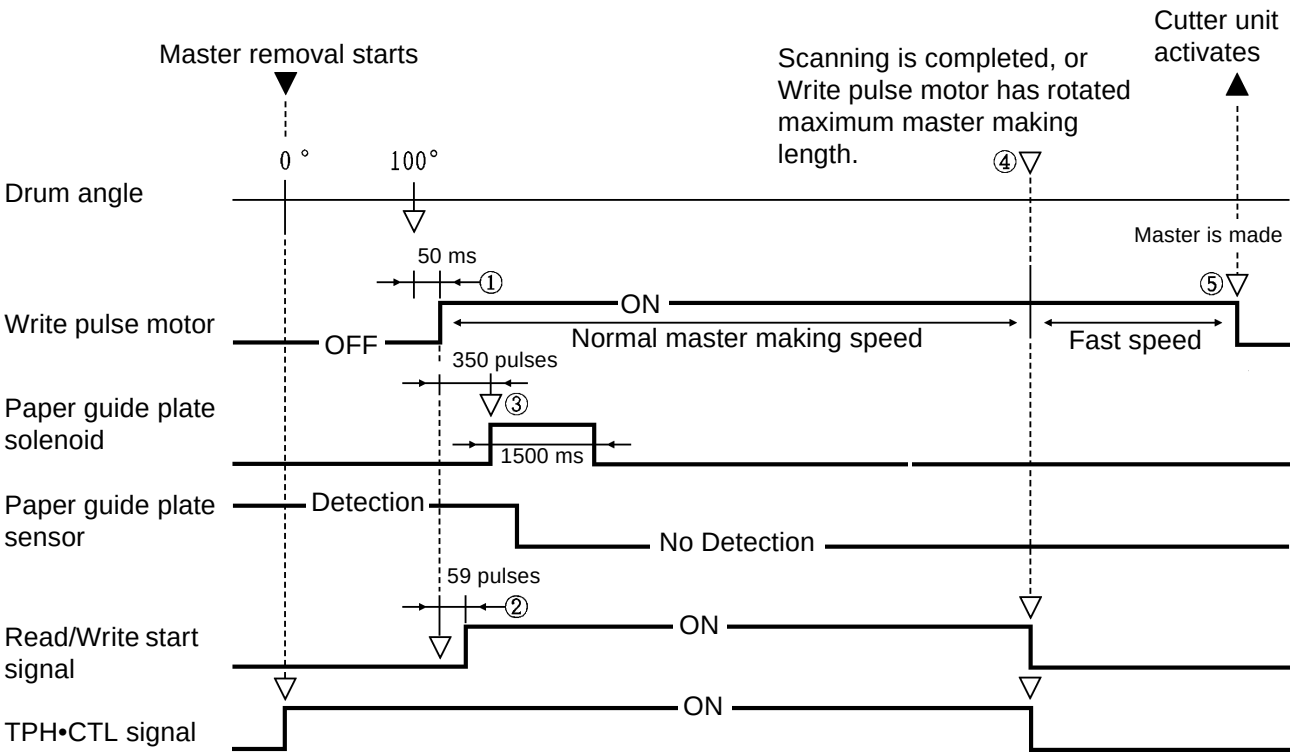
- While the Drum is rotates to remove the master on the Drum, the Write pulse motor activates and starts feeding the master material from the master roll 50 ms after the Drum rotates 100° from the first Drum Position-A.
- At the same time the original starts feeding through the ADF unit for scanning.
- As the Write pulse motor activates and feeds the master for 5mm, the Read & Write start signal is turned ON and the Thermal print head begins making image on the master material.

2. End of the Master Making

- After a certain set time, the Master tension plate solenoid activates and swings down the Master tension plate.
- The master runs through the Master tension plate and as the Master tension plate swings down, it gives tension on the master while the master is loaded on the Drum.
- Either the original scanning ends or if the Write pulse motor activates for the maximum master making length, both the TPH•CTL signal and Read & Write start signal turn OFF.
- The Write pulse motor is still activated until full length of master material is transferred. The Write pulse motor then stops and completes the master making process.



1. Master Making Timing Chart



① During the master removal Drum movement, **50 ms after the Drum angle 100**°, the Write pulse motor activates and transfers the master material.

② After the master material advances **59 pulses** (5 mm), the Read/Write start signal turns ON and master making starts. The original scanning starts at the same time.

③ **350 pulses** after the Write pulse motor turns ON, the Paper guide plate solenoid activates and drops the Paper guide plate down.

④ After the Scanning is completed or Write pulse motor has rotated maximum master making length, both the Read/Write start signal and TPH•CTL signal are turned OFF to end the master making.
The maximum master making length of the Write pulse motor is given on the chart below.
The value of c can be adjusted by Memory switch (Test mode) **No. 205**.

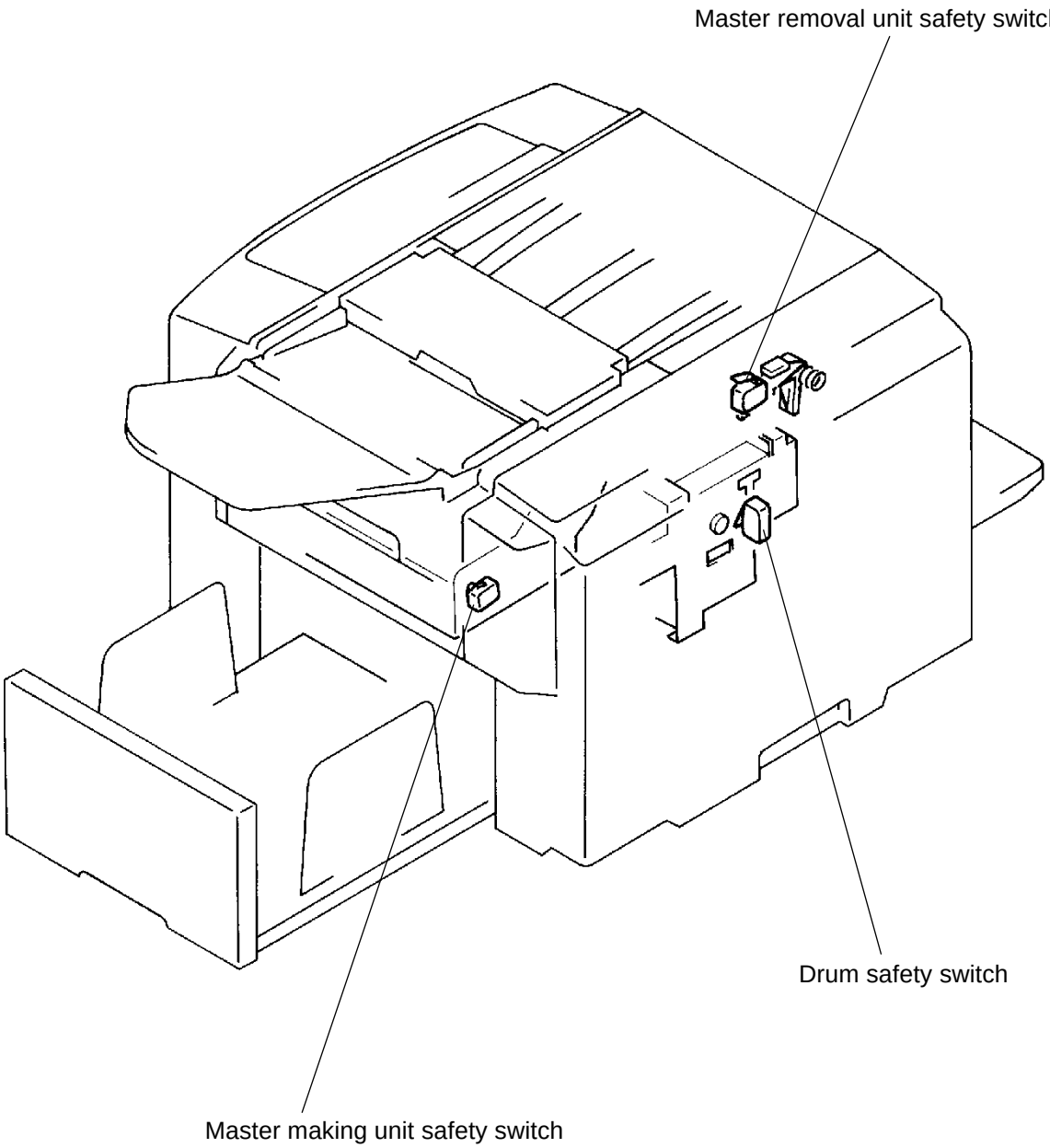
TR1510	3514 pulses ± χ pulses (297.5 mm ± χ mm)
TR1530	4305 pulses ± χ pulses (364.5 mm ± χ mm)

⑤ After the Read/Write start signal and TPH•CTL signal are turned off, the Write pulse motor keeps turning until one full size master length of master material is moved forward.
The Write pulse motor then turns OFF and the Cutter unit cuts the master material.
One full master length is given on the chart below.

TR1510	4160 pulses (358.91 mm)
TR1530	4951 pulses (419.08 mm)

(Revised on 8 Jan. 1996)

2. Thermal Power Safety Switches

1. Safety Switches

- The actuators of all three safety switches must be pressed in order to feed electrical power to the TPH unit.
- These three switches also acts as Main motor safety switches.